

REMARKS

The Office Action dated March 26, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Status of the Claims

Claims 25, 27-29, 31, 32, 34-45, 48, 49, 56, 58, 59 and 61 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 26 and 33 have been cancelled without prejudice or disclaimer. New claims 66-84 have been added. No new matter has been added. Thus, claims 25, 27-29, 31, 32, 34-45, 48, 49, 56, 58, 59, 61 and 66-84 are currently pending in the application and are respectfully submitted for consideration.

Rejection under 35 U.S.C. § 102

Claims 25, 28, 31, 32, 36, 39-45, 48, 49, 56, 58, 59 and 61 were rejected under 35 U.S.C. § 102(b) as being anticipated by Raith et al. (U.S. Patent No. 6,259,915). The Office Action took the position on pages 2-6 that Raith et al. discloses all of the features of the rejected claims. Applicants respectfully submit that Raith et al. fails to disclose or suggest the features of the above-rejected claims. Reconsideration of the claims is respectfully requested.

Independent claim 25, from which claims 27-29, 31, 32, 56, 58 and 79 depend, recites an access node portion configured to provide access to a wireless communication network based on an IEEE 802.11 standard and a processor configured to determine and

transmit communication information to a subscriber terminal. The communication information includes frequency band information indicating a plurality of frequency bands on which at least one access node portion of the wireless communication network is configured to communicate. The processor is further configured to incorporate the communication information in signaling using a transmission of specific frames to the subscriber terminal.

Independent claim 32, from which claims 34-43, 59, 61 and 80 depend, recites an apparatus including a communicator configured to communicate in a wireless communication network based on an IEEE 802.11 standard and a receiver configured to receive communication information transmitted from at least one access node of the wireless communication network. The communication information includes frequency band information indicating a plurality of frequency bands on which the at least one access node is configured to communicate. The communication information is received from the at least one access node by signaling by transmission of specific frames. The apparatus also includes a processor configured to process the received communication information so as to determine, based on the communication information, a communication connection capability of at least part of the at least one access node on the basis of the frequency band information. The apparatus is configured to decide on a communication connection changeover for the communicator of the apparatus by using a processing result.

Independent claim 44, from which claim 81 depends, recites a computer program embodied on a computer readable medium that controls a processor to perform a process, including determining communication information and transmitting the communication information to a subscriber terminal. The communication information includes frequency band information indicating a plurality of frequency bands on which at least one access node in a wireless communication network based on an IEEE 802.11 standard is capable of communication. The process also includes incorporating the communication information in signaling using a transmission of specific frames to the subscriber terminal.

Independent claim 45, from which claim 82 depends, recites a computer program embodied on a computer readable medium that controls a processor to perform a process, including receiving communication information transmitted from at least one access node in a wireless communication network based on an IEEE 802.11 standard. The communication information includes frequency band information indicating a plurality of frequency bands on which the at least one access node is capable of communication. The communication information is received from at least one access node by signaling by transmission of specific frames. The process also includes processing the received communication information to determine in the subscriber terminal, based on the communication information, a communication connection capability of at least part of the at least one access node on the basis of the frequency band information and the frequency

band coverage indicator and deciding, in the subscriber terminal, on a communication connection changeover of the subscriber terminal by using a result of the processing.

Independent claim 48, from which claims 66-69 and 83 depend, recites a method including determining communication information from at least one access node in a wireless communication network based on an IEEE 802.22 standard. The communication information includes frequency band information indicating a plurality of frequency bands on which the at least one access node is capable of communication. The method also includes transmitting the communication information from the at least one access node to a subscriber terminal by signaling by transmitting specific frames.

Independent claim 49, from which claims 70-78 and 84 depend, recites a method including receiving communication information from at least one access node in a wireless communication network based on an IEEE 802.22 standard. The communication information includes frequency band information indicating a plurality of frequency bands on which the at least one access node is configured to communicate. The communication information is received by signaling by transmission of specific frames. The method also includes processing the received communication information and determining based on the communication information a communication connection capability of at least part of the at least one access node on the basis of the frequency band information and the frequency band coverage indicator, and using a processing result for a decision on a communication connection changeover of a subscriber terminal.

As will be discussed below, Raith et al. fails to disclose or suggest the features of the presently pending claims.

Raith et al. generally discusses “a multiple hyperband cellular communications system and multiple hyperband capable mobile stations for operation therein” (column 1, lines 30-32). “These mobile and base stations support multiple hyperband operations including, for example, mobile assisted channel allocation (MACA), mobile assisted handover (MAHO), cell reselection, traffic channel assignment, control channel location and registration. By bridging multiple hyperbands, service quality can be enhanced” (column 2, lines 57-63, of Raith et al.).

Claim 25 is amended herein to recite at least some similar features to cancelled claim 26. Claim 25 recites, in part, “an access node portion configured to provide access to a wireless communication network based on an IEEE 802.11 standard”. Claims 32, 44, 45, 48 and 49, which each have their own scope, have been amended to recite at least some similar features. As noted on page 6 of the Office Action that Raith et al. does not teach that “said wireless communication network is a WLAN, based on an IEEE 802.11 standard.” As such, the amended claims clearly overcome the 35 U.S.C. § 102(b) rejection.

In rejecting claims 26, 27 and 33-35, the Office Action asserted on page 6 that “Moreton teaches in an analogous art the access node, wherein said wireless communication network is a WLAN, based on an IEEE 802.11 standard (Abstract).” Moreton et al. generally discusses “a method of controlling access between a dual mode

access point for a Wireless Local Area Network (WLAN), and first and second client transceiver being operable to communication with the Access Point over a first and second channel, respectively” (paragraph [0014]). Applicants respectfully submit that Moreton et al. and Raith et al. are not analogous art and a person of ordinary skill in the art would not be compelled to combine these references.

Applicants respectfully submit that there are significant differences between WLAN and cellular networks. For example, in WLAN, the handover decision is made by the client (or mobile node) and signaling between the client and server in WLAN-specific frames is used. On the other hand, in a cellular system discussed in Raith et al., dedicated channels (control channels) are used (see, for example, column 3, lines 47-59, of Raith et al.). As such, the decision on the changeover of a communication connection is different between WLAN and cellular systems, including initiation of measurements, information requests and the like. Applicants respectfully submit that a person of ordinary skill in the art would be aware of these differences between WLAN and cellular systems. Taking into account that some embodiments of the present invention seek to reduce the effort necessary to decide on a communication connection changeover, Applicants submit that a person of ordinary skill in the art would not refer to Raith et al. when seeking to implement solutions connection changeover solutions in a WLAN communication network. The systems and logical structures in cellular and WLAN systems differ significantly for handover processing, and Applicants respectfully submit

that a person of ordinary skill in the art would not use Raith et al., which pertains to a cellular network, when implementing handover solutions in a WLAN network.

Further, certain embodiments of claims 32, 45 and 49 may be implemented as a subscriber terminal. Applicants respectfully submit that Raith et al. does not teach or suggest that any handover decisions are made by or in a subscriber terminal. Rather, Raith et al. discusses that “it is desirable to handover the connection from the PCS hyperband base station 30 in cell 26 to the Cellular hyperband base station 28 in cell 18. This can be accomplished, for example, by transmitting a signal from base station 30 in cell 26 to the mobile station 32 informing the mobile station of the new frequency and hyperband to which it should tune to continue the connection” (column 7, line 66, through column 8, line 5). Applicants submit that this is typical of cellular systems, such as the cellular system discussed in Raith et al. As such, in Raith et al., decisions regarding handoff are made by a base station. There is no disclosure or suggestion in Raith et al. of any such decision being made by or in a subscriber terminal.

Claims 28, 31, 36, 39-43, 56, 58, 59 and 61 depend from claims 25 or 32 and add further features thereto. Thus, the arguments above with respect to the independent claims also apply to the dependent claims.

Per the above, the cited art fails to disclose, teach or suggest the features of the above-rejected claims. Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

Rejections under 35 U.S.C. § 103

that a person of ordinary skill in the art would not use Raith et al., which pertains to a cellular network, when implementing handover solutions in a WLAN network.

Further, certain embodiments of claims 32, 45 and 49 may be implemented as a subscriber terminal. Applicants respectfully submit that Raith et al. does not teach or suggest that any handover decisions are made by or in a subscriber terminal. Rather, Raith et al. discusses that “it is desirable to handover the connection from the PCS hyperband base station 30 in cell 26 to the Cellular hyperband base station 28 in cell 18. This can be accomplished, for example, by transmitting a signal from base station 30 in cell 26 to the mobile station 32 informing the mobile station of the new frequency and hyperband to which it should tune to continue the connection” (column 7, line 66, through column 8, line 5). Applicants submit that this is typical of cellular systems, such as the cellular system discussed in Raith et al. As such, in Raith et al., decisions regarding handoff are made by a base station. There is no disclosure or suggestion in Raith et al. of any such decision being made by or in a subscriber terminal.

Claims 28, 31, 36, 39-43, 56, 58, 59 and 61 depend from claims 25 or 32 and add further features thereto. Thus, the arguments above with respect to the independent claims also apply to the dependent claims.

Per the above, the cited art fails to disclose, teach or suggest the features of the above-rejected claims. Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 26, 27 and 33-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Raith et al. in view of Moreton et al. (U.S. Publication No. 2004/0013128). Claims 26 and 33 have been cancelled without prejudice or disclaimer. Claims 27, 34 and 35 depend from independent claims 25 or 32 and add further features thereto. Thus, the arguments above with respect to the independent claims also apply to the dependent claims.

Further, Applicants respectfully submit that the cited Moreton et al. published U.S. application is not prior art with respect to the present application since Moreton et al. was filed May 2, 2003, subsequently to the properly perfected priority date of the present application of December 19, 2002. Moreton et al. claims the priority of GB 0216843.3 (July 9, 2002) and 0223762.6 (October 11, 2002). However, Moreton et al. is not entitled to the foreign filing dates for the purposes of being considered prior art under 35 U.S.C. § 102(e), or any other statutory provision.

Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

Claims 29 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Raith et al. in view of the U.S. publication corresponding with the present application (U.S. Publication No. 2006/0073827). Claims 29 and 37 depend from independent claims 25 or 32 and add further features thereto. Nothing is cited or found in the background of Applicants' published application that overcomes the deficiencies of

Raith et al. discussed above with respect to the independent claims. Thus, the arguments above with respect to the independent claims also apply to the dependent claims.

Further, the U.S. publication corresponding to the present application does not qualify as prior art. Naturally, the publication of the present application came later than the filing of the present application. As such, the Office Action cannot rely on the reference under 35 U.S.C. § 102(b). Further, the Office Action also cannot rely on the publication under 35 U.S.C. § 102(e) since the U.S. publication of the present application clearly shares the same inventors.

Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

New Claims

New claims 66-84 have been added. Claims 66-78, which each have their own scope, depend from independent method claims 48 or 49 and recite similar features to dependent claims of independent apparatus claims 25 and 32. Claims 79-84 depend from independent claims 25, 32, 44, 45, 48 and 49, respectively, and recite similar features to some of those deleted from the independent claims. Accordingly, for at least the reasons discussed above with respect to the independent claims, it is respectfully submitted that the new claims patentably distinguish over the cited art.

Conclusion

For at least the reasons presented above, it is respectfully submitted that claims 25, 27-29, 31, 32, 34-45, 48, 49, 56, 58, 59, 61 and 66-84, comprising all of the currently

pending claims, patentably distinguish over the cited art. Accordingly, it is respectfully requested that the claims be allowed and the application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Request for Continued Examination
Additional Claim Fee Transmittal